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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/630,014	07/30/2003	Robert Rusin	37505.0222	8511

7590 11/15/2006

EXAMINER
LEE, CYNTHIA K

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ART UNIT	PAPER NUMBER
1745	

DATE MAILED: 11/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/630,014	RUSIN ET AL.	
	Examiner	Art Unit	
	Cynthia Lee	1745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 September 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14 and 20-30* is/are pending in the application.

4a) Of the above claim(s) *20-25* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14 and 26-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 July 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *9/19/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Response to Amendment

This Office Action is responsive to the amendment filed on 9/19/2006. Claims 15-19 have been canceled and claims 26-30 have been added. Claims 1-14, 20-30 are pending.

Arguments to The Double Patenting rejection have been considered and were persuasive. The Double Patenting rejection has been withdrawn.

Applicant's arguments have been fully considered. Upon further consideration, the instant claims are rejected under new grounds of rejections and thus, claims 1-14 and 26-30 are finally rejected for reasons of record and for reasons necessitated by applicant's amendment.

Election/Restrictions

Claims 20-25 are withdrawn from further consideration as being drawn to a non-elected invention. Should the product claims become allowable, claims 20-25 will be further considered for rejoinder. For the purposes of prosecution, only claims 1-14 and 26-30 were considered.

Information Disclosure Statement

The Information Disclosure Statement (IDS) filed 9/19/2006 has been placed in the application file and the information referred to therein has been considered.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-14 and 26-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In 1, 9, 14, and 30, the recitation "sufficient distance" is unclear because the applicant has not defined what he means by "sufficient distant" as to make this term clear.

Claims depending from claims rejected under 35 USC 112, second paragraph are also rejected for the same.

Claims Analysis

The limitation "machined" has been considered but was not given patentable weight because the courts have held that the method of forming the product is not germane to the issue of patentability of the product itself. *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). See MPEP 2113.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-13, 26, 27, 29, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heller (US 6010803) in view of Cretzmeyer (US 5173375).

Heller discloses an electrochemical cell comprising a container, an electrode assembly comprising an anode and a cathode, a lid having apart upper and lower surfaces joined by a peripheral edge and secured to the open end of the container to

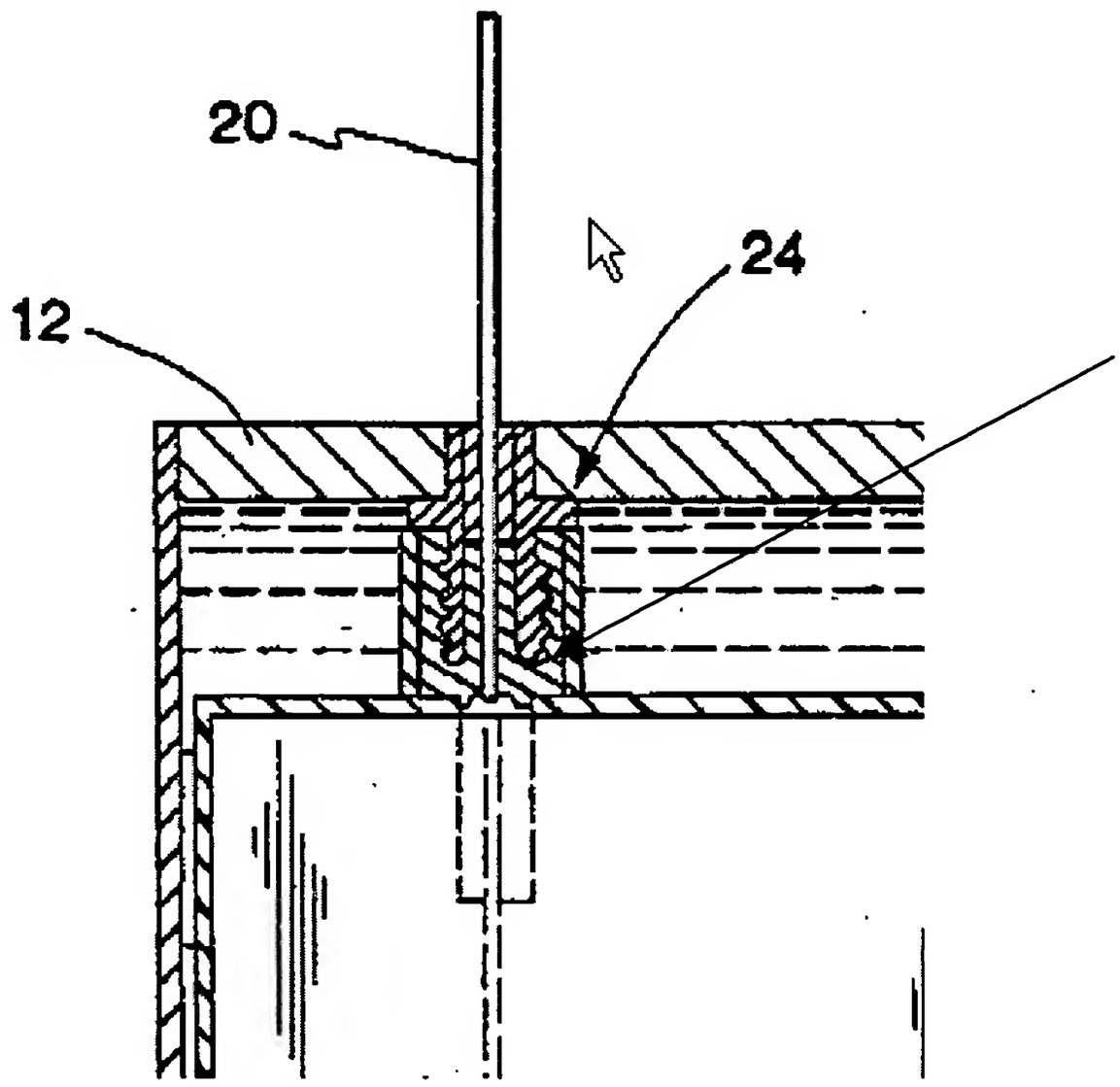
provide a casing housing the electrode assembly, wherein the lid has at least a unitary terminal ferrule extending below the lid lower surface (5:40-50) (applicant's claims 26 and 27). See Fig. 1-3. The terminal lead extends through the terminal ferrule and has a length providing a first end position spaced above the upper surface of the lid and a second end connected to the cathode and the terminal lead is sealed in the terminal ferrule with a fluoropolymer (6:35-40 and 8:25-30). The fluoropolymer serves as an insulator. The insulator encases the terminal ferrule at least a portion of the length of the terminal lead disposed inside the casing (see fig. 2). The lid comprises an electrically conductive material such as stainless steel, titanium, or other suitable conductive metal (5:30-35). The electrolyte must necessarily be present for the electrochemical cell to operate.

Heller discloses that the outer surface of the ferrule is provided with a series of annular rings encased by the insulator (applicant's claim 3). See fig. 2. The insulator is surrounded by an annular ring encasing the terminal ferrule (applicant's claim 5). See 221 in Fig. 2. The lid further comprises a unitary fill port extending below the lid lower surface (applicant's claim 6). See 127 in Fig. 2 and 5:45-50.

Heller discloses that the electrochemical cell is a lithium silver vanadium oxide cell and a lithium manganese dioxide cell (5:3) (applicant's claims 29 and 30).

Heller does not disclose that the insulator encases the terminal lead from a lower surface of the sealing material to a location spaced below the lower ferrule surface (applicant's claims 1, 9, and 30). However, Cretzmeyer teaches an electrochemical cell

in which a material (see arrow) separates the current collector 20 from a terminal ferrule and encloses the terminal ferrule (fig. 1, reproduced below).



It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the insulation of Heller to completely enclose the terminal ferrule for the benefit of completely protecting the terminal ferrule.

Heller discloses that the seal comprises a fluoropolymer, but does not disclose that it is a thermoplastic polymer (applicant's claims 2 and 10). However, the fluoropolymer of Heller would inherently be a thermoplastic fluoropolymer because it was used in injection molding.

Heller does not disclose that the terminal ferrule is characterized by a roughened texture (applicant's claims 4 and 12). However, Heller discloses that a fillport opening

comprises holding projections extending into the opening for holding a closure button (490 in Fig. 10). Further, the interior of the lid comprises a bracket projection for attachment of an interior component of the cell (495 in Fig. 11). Likewise, it would have been obvious to one of ordinary skill in the art at the time the invention was made to add projections or protrusions (applicant's roughened texture) to the terminal ferrule as well for the benefit of holding the terminal lead with a better grip.

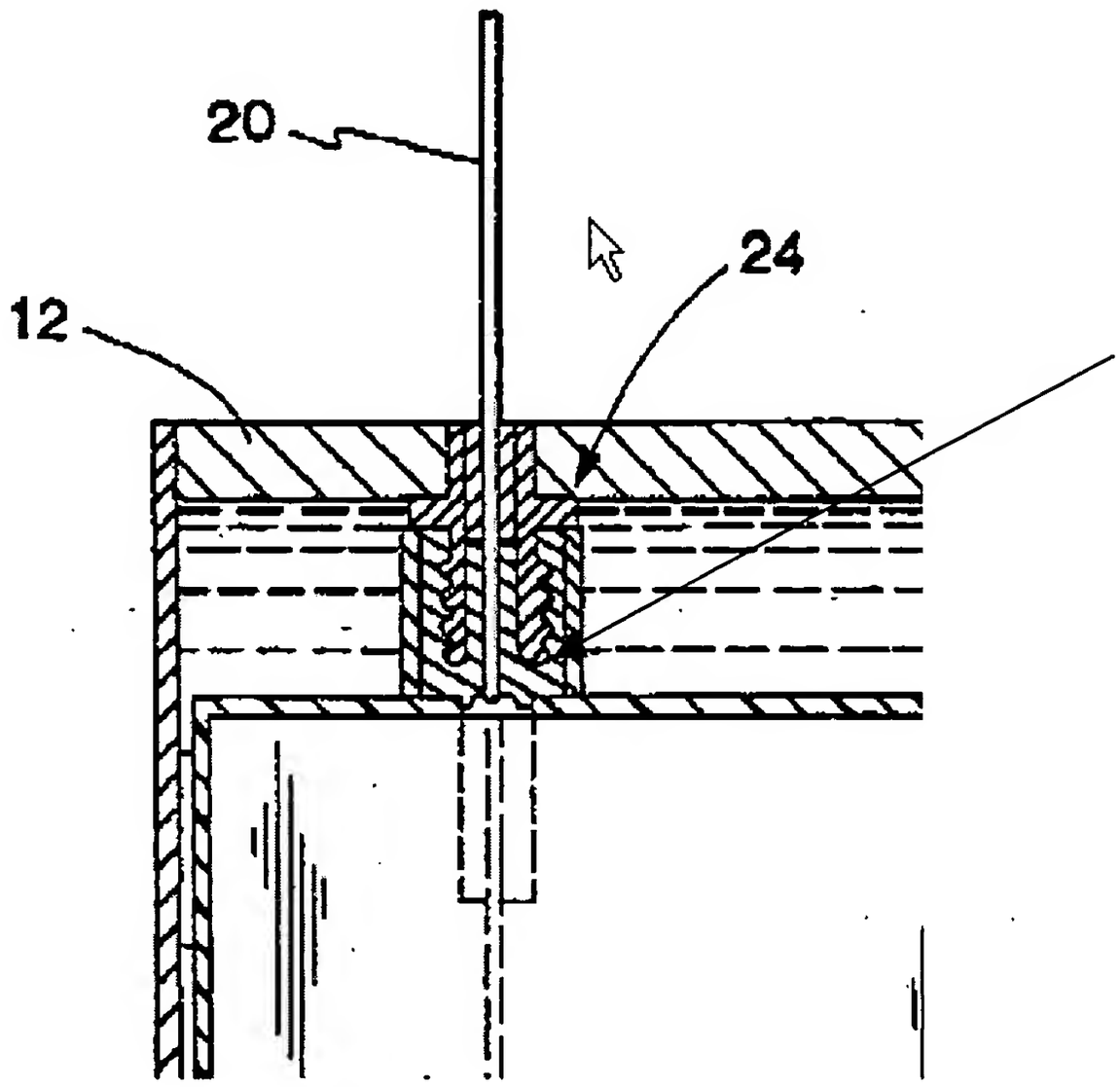
Claims 14 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heller (US 6010803) in view of Cretzmeyer (US 5173375) and Ben Haim (US 6463324).

Heller discloses an electrochemical cell comprising a container, an electrode assembly comprising an anode and a cathode, a lid having apart upper and lower surfaces joined by a peripheral edge and secured to the open end of the container to provide a casing housing the electrode assembly, wherein the lid has at least a unitary terminal ferrule extending below the lid lower surface (5:40-50) (applicant's claim 28). See Fig. 1-3. The terminal lead extends through the terminal ferrule and has a length providing a first end position spaced above the upper surface of the lid and a second end connected to the cathode and the terminal lead is sealed in the terminal ferrule with a fluoropolymer (6:35-40 and 8:25-30). The fluoropolymer serves as an insulator. The insulator encases the terminal ferrule at least a portion of the length of the terminal lead disposed inside the casing (see fig. 2). The lid comprises an electrically conductive

material such as stainless steel, titanium, or other suitable conductive metal (5:30-35). The electrolyte must necessarily be present for the electrochemical cell to operate.

Heller discloses a medical implant device, such as a pacemaker (4:50-55). Heller further discloses all the elements of the electrochemical device as recited above, but does not disclose a control circuitry. However, Ben-Haim teaches a pacemaker with a controller for controlling the pacemaker (26 in Fig. 2A). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to add a controller to Heller's pacemaker for the benefit of controlling the pacemaker in response to and in synchronization with a pacing pulse as applied to patient's heart, as taught by Ben-Haim (9:1-10).

Heller does not disclose that the insulator encases the terminal lead from a lower surface of the sealing material to a location spaced below the lower ferrule surface (applicant's claims 1, 9, and 30). However, Cretzmeyer teaches an electrochemical cell in which a material (see arrow) separates the current collector 20 from a terminal ferrule and encloses the terminal ferrule (fig. 1, reproduced below).



It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the insulation of Heller to completely enclose the terminal ferrule for the benefit of completely protecting the terminal ferrule.

Response to Arguments

Applicant's arguments filed 9/19/2006 have been considered but are moot in view of the new ground(s) of rejection. Argument that is still in consideration is as follows:

Applicant asserts that Heller's primary focus was a metal injection molded cover for a low rate lithium iodine cell, and that Heller did not ensure that no two components of opposite polarity were "exposed" to each other.

The Examiner notes that low rate electrochemical cells were not of only concern in Heller (see 4:60-5:3) and that lithium iodide cells were depicted for simplicity purposes only. Further, the Examiner further notes that protecting the terminal ferrule is not of concern only for high rate batteries, but a design choice applicable to all types batteries.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cynthia Lee whose telephone number is 571-272-8699. The examiner can normally be reached on Monday-Friday 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's trainer, Susy Tsang-Foster can be reached on 571-272-1293. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Susy Tsang Foster

SUSY TSANG-FOSTER
PRIMARY EXAMINER

ckl

Cynthia Lee

Patent Examiner